

# DOE Workshop: Electric Transmission Permitting/Siting Issues

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**ecology and  
environment, inc.**  
Global Environmental Specialists

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- I speak for myself

# Introduction

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- Case study in two large, international projects
  - NPT & GNTL
- Easy to talk about challenges
- What about opportunities?
  - IIP process creates an opportunity for developers
  - Pre-filing activities minimize risk and expedite schedule
  - State statutory permitting timelines

# Great Northern / Northern Pass



- Manitoba / Minnesota
- 220-mile 500kV HVAC
- Overhead
- New ROW
- Import hydro to MISO
- Market efficiency project
- Joint State/Federal EIS
- **15 Months (FEIS)**



- Quebec / New Hampshire
- 192-mile 345kV HVDC/AC
- 66% OVH 33% Buried
- 80% Existing ROW
- Import hydro to ISO-NE
- Market efficiency project
- Federal EIS
- **7 years (FEIS)**

# Integrated Interagency Pre-Application (IIP) Process

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## DOE Intent

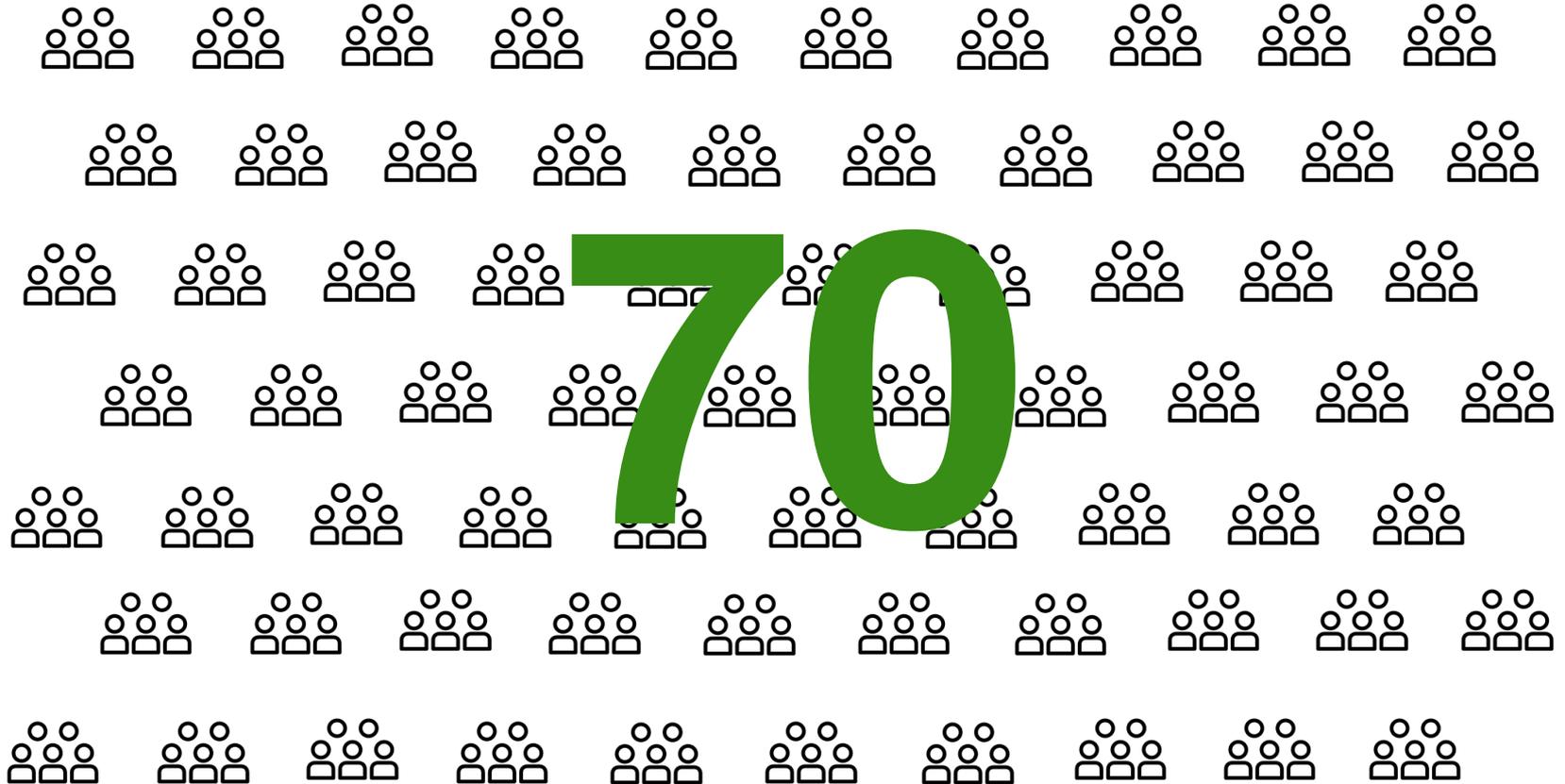
- Early coordination
- Early information sharing
- Better planning
- More robust permit applications
- Efficiencies in NEPA reviews

*Improve permitting times*

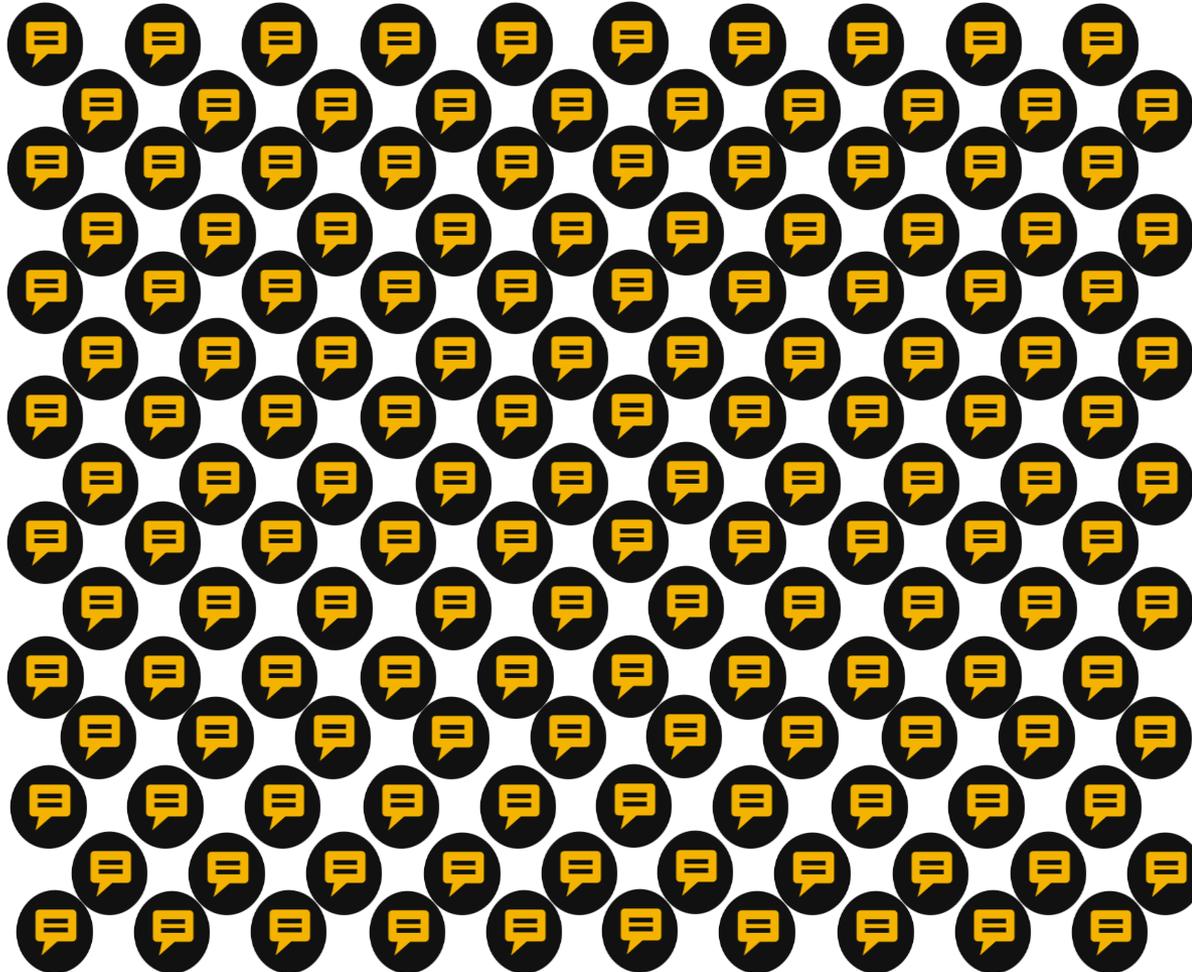
# Public Involvement Efforts: Pre-Application

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# GNTL Public Involvement

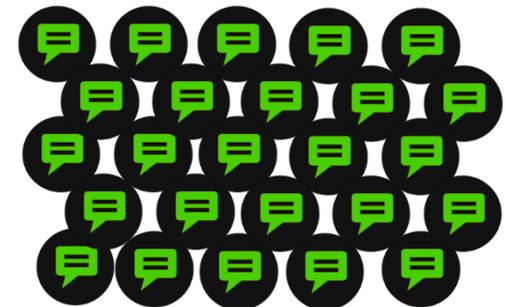


# GNTL Public Involvement



1500+

~250



# NPT Public Involvement: Pre-Application

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~0

# NPT Public Involvement

~9000



# NPT Public Involvement

~9000



# NPT Public Involvement

~9000



# Joint State / Federal Process



- MN route permit
- DOE Presidential Permit
- MN statutory timeline
- 1 year + 3-mo. extension
- Ensured NEPA progress

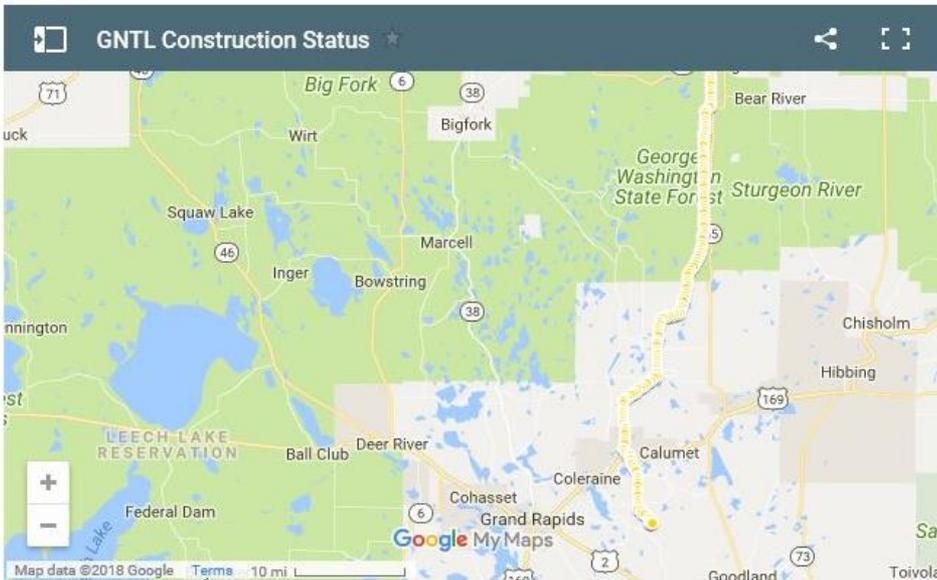
## GNTL Proof

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*“When it comes to decision-day your materials are passed through in a simple motion, essentially a blink of an eye. I wanted to take this opportunity to let you know that your efforts are not lost on me. I know the EIS was a whole hell of a lot of work. It was comprehensive, extremely informative and of a high quality. I think, in part, that is why it can move right through with a single, no questions-asked motion and vote.”*

– MN PUC Staff to MN DOC

# GNTL Under Construction



Right-of-Way

Access, Clearing & Ground Survey

Structure

Foundations & Anchors

## CONSTRUCTION ACTIVITIES

### Access, Clearing & Ground Survey



Tree and brush clearing may occur within the full easement width. Trees will be cut at ground level and stacked next to the right-of-way, while brush will be mowed or chipped and spread evenly throughout the right-of-way. A soil boring, or geotechnical investigation, will also occur at each structure site.

### Foundations & Anchors



Helical pile screws and concrete foundations may be used depending on the terrain and other engineering considerations. Helical piles and anchors are screwed into the ground using specialized drilling equipment.

### Structure Assembly & Setting



Structures will either be guyed (anchored) or un-guyed and will be installed by conventional ground methods or by aerial equipment (helicopters). There are generally two types of guyed and three types of un-guyed structures.

### Wire Stringing



Overhead ground wires and conductor lead lines are pulled through the structures via helicopter. Wire stringing sites will be staged along the ROW approximately every few miles. The final process of construction is reclamation and restoration of all disturbed areas.

# Lessons Learned

- Permitting can be largest risk to project schedule
- IIP best practices can expedite permitting
- Opportunities at state level
- Critical to:
  - Getting project in service
  - Delivering low carbon power
  - Meeting policy goals



# Questions?

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